

**Legend**

Current Detailed Study Alternatives

West / East of NC 210

Alternative M1

Alternative M2

Alternative O

West / East of NC 210

Alternative E-H

Alternative R

Alternative U

Interchange Locations

Major/Minor Roads

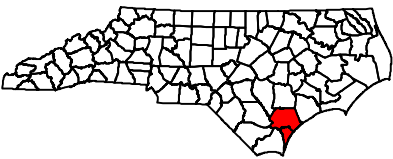
Water Features

County Boundary

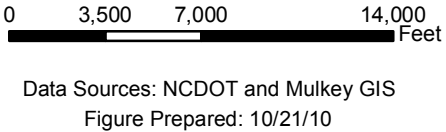
City of Wilmington

Prepared by: **MULKEY**  
ENGINEERS & CONSULTANTS

Prepared for:

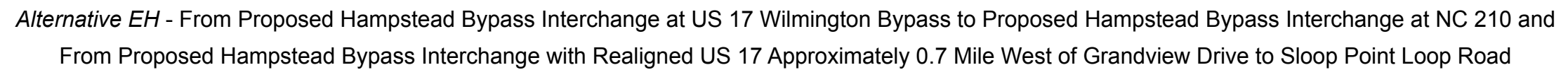


**Current Detailed Study Alternatives (DEIS)**  
US 17 Corridor Study  
NCDOT TIP Project Numbers U-4751 & R-3300  
New Hanover & Pender Counties, NC









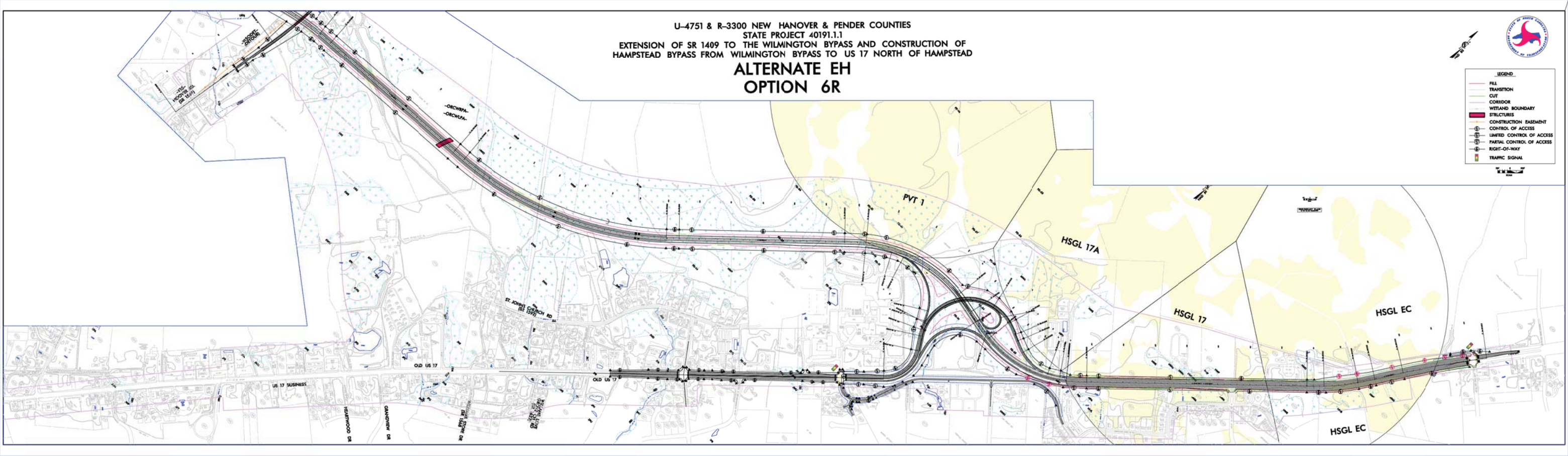
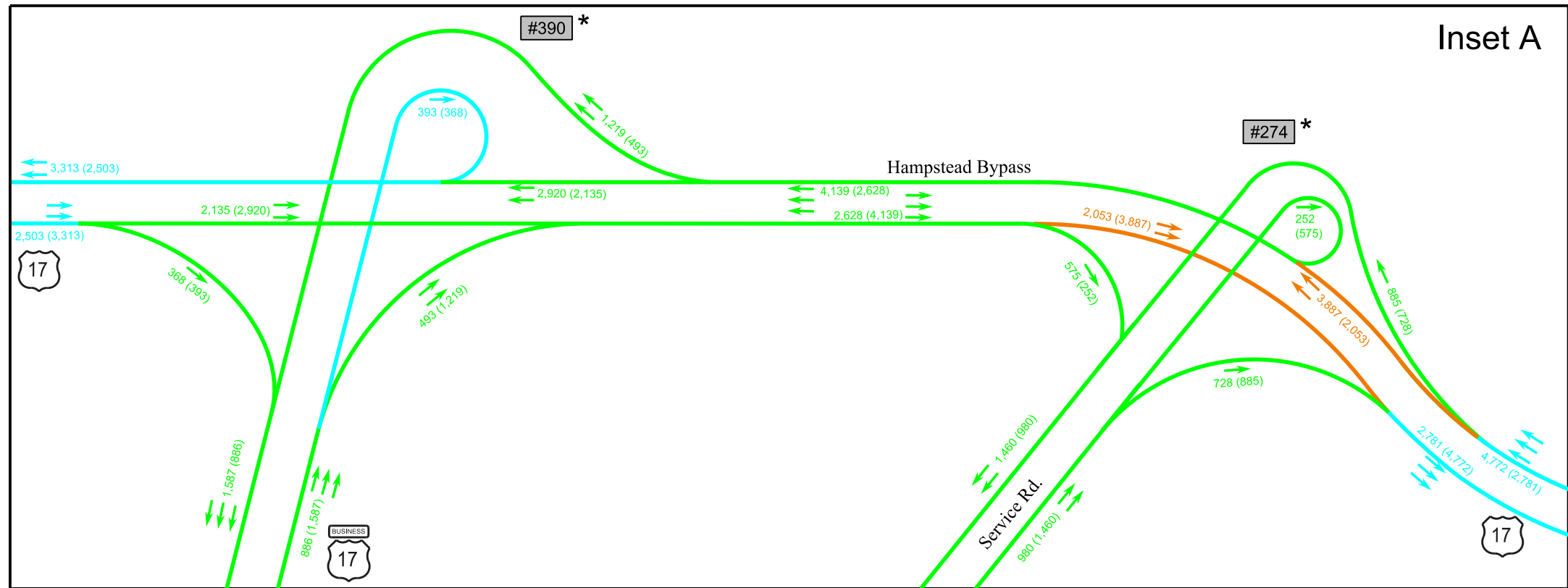
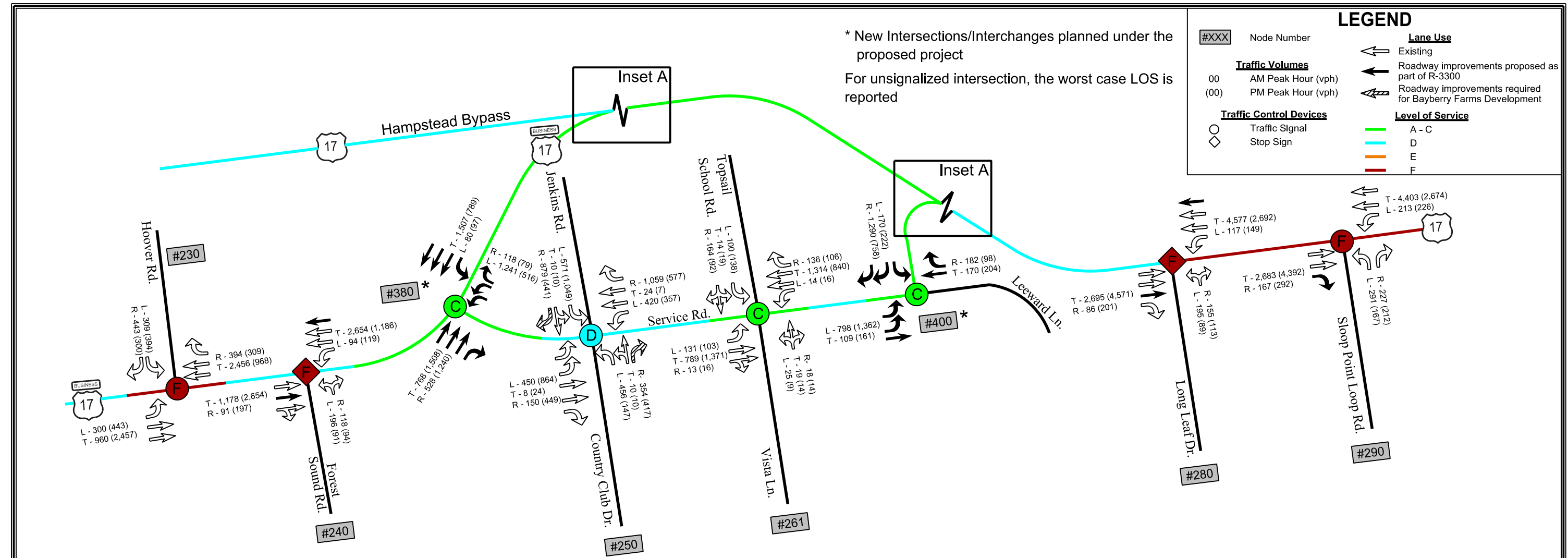


Figure No.



**2035 BUILD CONDITIONS**  
**INTERSECTION PEAK HOUR TRAFFIC VOLUMES**  
**Option 6TR**

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION

RSH  
 IMPROVING YOUR WORLD  
 RSH Architects Engineers Planners, Inc.

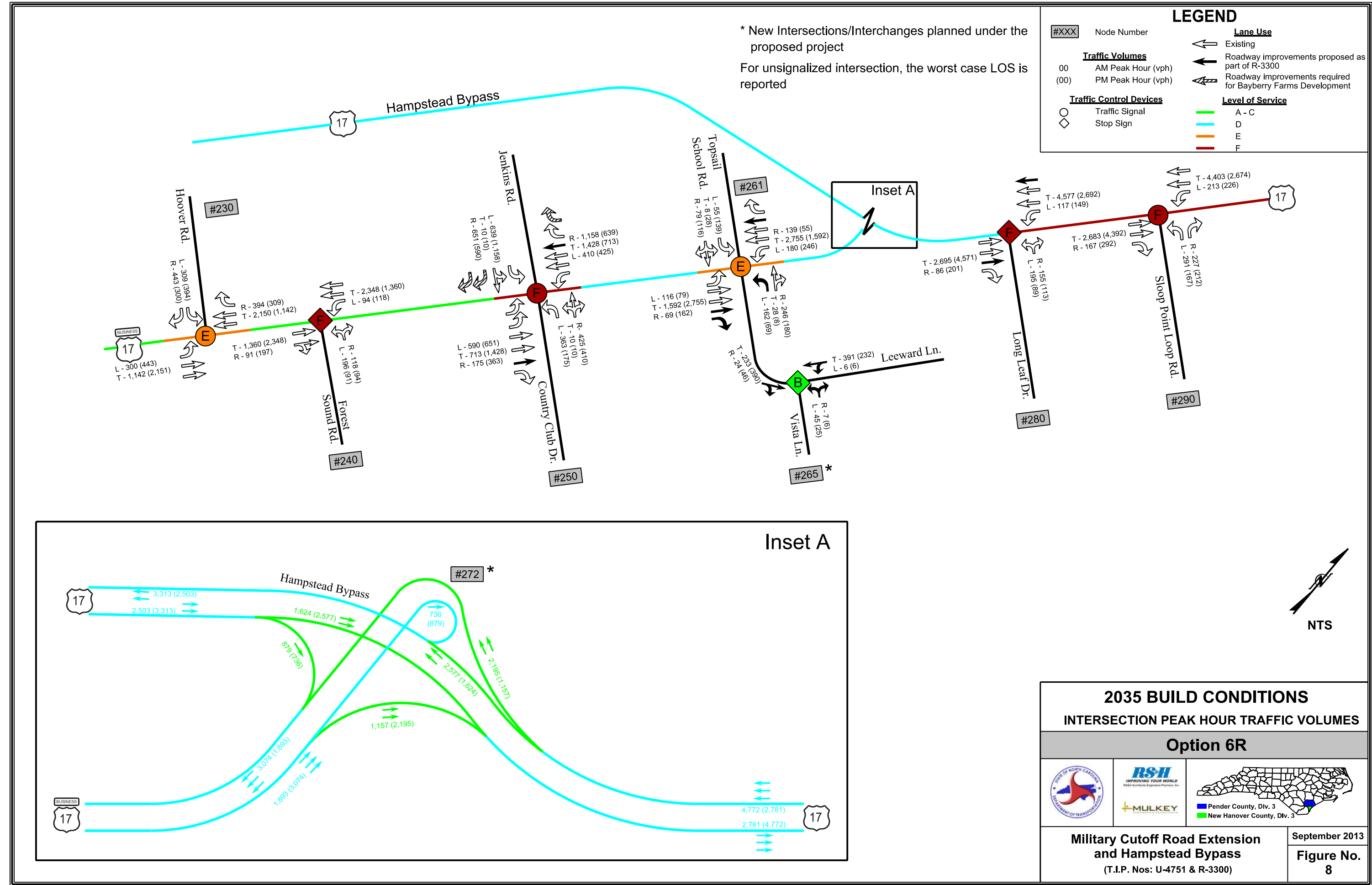
MULKEY  
 ENGINEERS & ARCHITECTS

Map of North Carolina showing the location of the project in Pender County, Div. 3 and New Hanover County, Div. 3.

**Military Cutoff Road Extension and Hampstead Bypass**  
 (T.I.P. Nos: U-4751 & R-3300)

September 2013  
**Figure No. 7**





## **APPENDIX B**

### **AGENCY CORRESPONDENCE**

---







REPLY TO  
ATTENTION OF:

**DEPARTMENT OF THE ARMY**  
WILMINGTON DISTRICT, CORPS OF ENGINEERS  
69 DARLINGTON AVENUE  
WILMINGTON, NORTH CAROLINA 28403-1343

June 19, 2013

Regulatory Division

Action ID No. SAW-2007- 1386

Mr. Jay McInnis  
NCDOT, PDEA  
1548 Mail Service Center  
Raleigh, NC 27699-1548

Dear Mr. McInnis:

Please reference transportation improvement project U-4751 and R-3300, also referred to as the Hampstead Bypass, which originates near the current terminus of Military Cutoff Road into Highway 17 and will extend to the north of Hampstead as a bypass along Highway 17. This proposed project would cross County lines from New Hanover into Pender County, North Carolina.

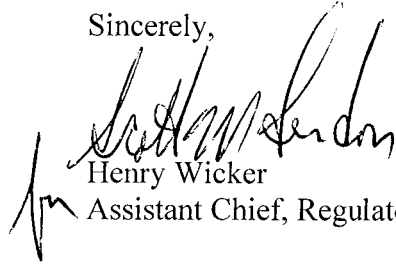
As you are aware during your scoping process for the Draft Environmental Impact Statement (DEIS) the citizens of Hampstead had traffic concerns with the preferred alternative. In order to address their concerns, the North Carolina Department of Transportation (NCDOT) proposed to construct a second interchange designed on the northern end of the project as well as two additional lanes between the proposed interchanges. These additional changes have not been presented to the public through the National Environmental Protection Act (NEPA) scoping process and the question has been raised as to whether or not the NCDOT would need to provide a supplemental DEIS to the Corps for circulation of the aforementioned project. It is the Corps' opinion, based on Sec. 1502.9 of Council of Environmental Quality Regulations for Implementing NEPA, that changes which have occurred since release of the DEIS are substantial and need to be further described in a supplemental DEIS. This supplemental effort would then be re-circulated through the Federal Register as well as a public notice soliciting comment.

This supplemental effort should clearly describe the changes that have occurred subsequent to the release of the DEIS and provide the history and rationale for such changes. This supplemental DEIS will not serve to revisit the concurrence point determination of Least Environmentally Damaging and Practicable Alternative (LEDPA) in accordance with the Merger Process. The decision to process a supplement provides the affected public and federal and state agencies an opportunity to comment on the revised project and these comments will then be addressed in the Final Environmental Impact Statement (FEIS).

Following this correspondence the Corps will forward a Notice of Intent (NOI) to the Federal Register for publication. In order to provide an accurate NOI, please provide the Corps an idea as to when the supplemental document may be forwarded for comment. This will provide the Corps a sense of timing to place on the NOI alerting interested parties of a projected release date.

In closing, this decision was not taken lightly. However, the Corps believes this decision best follows the procedures and intent of NEPA. If you have any questions regarding this decision or desire to discuss further, please don't hesitate to call me at (910) 251-4930 or Brad Shaver at (910)251-4611.

Sincerely,

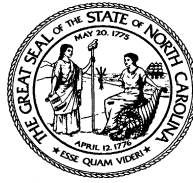
A handwritten signature in black ink, appearing to read "Henry Wicker", is written over the typed name.

Henry Wicker

Assistant Chief, Regulatory Division

Copy Furnished:

Mason Herndon  
North Carolina Department of Environment  
and Natural Resources  
Division of Water Quality  
Fayetteville Regional Office  
225 Green Street, Suite 714  
Fayetteville, NC 28301



**North Carolina Department of Cultural Resources  
State Historic Preservation Office**

Ramona M. Bartos, Administrator

Governor Pat McCrory  
Secretary Susan Kluttz

Office of Archives and History  
Deputy Secretary Kevin Cherry

September 3, 2013

**MEMORANDUM**

**TO:** Matt Wilkerson  
Office of Human Environment  
NCDOT Division of Highways

**FROM:** Ramona M. Bartos *RMB for Ramona M. Bartos*

**SUBJECT:** Management Summary: *Archaeological Survey and Evaluation of the Proposed Military Cutoff Road Extension and US 17 Hampstead Bypass in New Hanover and Pender Counties*, ER 05-2123

We have reviewed the archaeological management summary produced by Coastal Carolina Research, Inc. (CCR) for the Military Cutoff Road Extension and the Hampstead Bypass.

The area of potential effect (APE) was defined as a 33.5 mile corridor running roughly parallel to US 17 between Ogden (New Hanover County) and Hampstead (Pender County). The archaeological survey consisted of 133 acres intensively surveyed and 158 acres visually surveyed that focused on areas where local topography and hydrology suggested a medium to high probability for encountering significant archaeological resources. As a result nine archaeological sites were identified, one of which (31PD344\*\*) was recommended eligible for inclusion on the National Register of Historic Places.

We look forward to reviewing the technical report detailing CCR's survey findings this fall.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment please contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579. In all future communication concerning this project, please cite the above referenced tracking number.





## **APPENDIX C**

### **NEPA/SECTION 404 CONCURRENCE FORMS**

---



# SECTION 404/NEPA INTERAGENCY AGREEMENT

## CONCURRENCE POINT NO. 3 LEAST ENVIRONMENTALLY DAMAGING PRACTICABLE ALTERNATIVE (LEDPA)

### PROJECT TITLE AND PROJECT NUMBERS:

Proposed SR 1409 (Military Cutoff Road) Extension and Proposed US 17 Hampstead Bypass, New Hanover and Pender Counties

TIP Nos. U-4751 (Military Cutoff Road Extension) and R-3300 (Hampstead Bypass)  
State Project No. 40191.1.2, Corps Action ID 2007 1386

### PURPOSE AND NEED OF THE PROPOSED ACTION:

The purpose of the US 17 Corridor Study is to improve the traffic carrying capacity and safety of the US 17 and Market Street corridor in the project area.

### LEAST ENVIRONMENTALLY DAMAGING PRACTICABLE ALTERNATIVE (LEDPA):

- |                       |   |  |                     |                              |  |
|-----------------------|---|--|---------------------|------------------------------|--|
| 1. Alternative M1+E-H | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | 4. Alternative M1+U | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 2. Alternative M2+O   | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No | 5. Alternative M2+U | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 3. Alternative M1+R   | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |                     |                              |  |

The project team has concurred on the LEDPA for the proposed project as listed above.

NAME	AGENCY	DATE
<i>Brad Edwards</i>	USACE	5-17-2012
	USEPA	
<i>Fany Jordan</i>	USFWS	5/17/2012
<i>Tracy White for Ken Seckler</i>	NMF	6/8/2012
<i>Michael</i>	NCDCM	5/17/12
<i>Renee Bleckhill-Early</i>	NCSHPO	5-17-12
	NCDMF	
<i>David W. King</i>	NCDWQ	5-17-12
<i>Steve R. R.</i>	NCWRC	5-17-2012
<i>Allynn Kim Gillespie</i>	NCIDOT	5/17/2012
<i>Mark J.</i>	WMPO	5/17/12

## SECTION 404/NEPA INTERAGENCY AGREEMENT

### CONCURRENCE POINT NO. 3 LEAST ENVIRONMENTALLY DAMAGING PRACTICABLE ALTERNATIVE (LEDPA)

#### PROJECT TITLE AND PROJECT NUMBERS:

Proposed SR 1409 (Military Cutoff Road) Extension and Proposed US 17 Hampstead Bypass, New Hanover and Pender Counties

TIP Nos. U-4751 (Military Cutoff Road Extension) and R-3300 (Hampstead Bypass)  
State Project No. 40191.1.2, Corps Action ID 2007 1386

#### PURPOSE AND NEED OF THE PROPOSED ACTION:

The purpose of the US 17 Corridor Study is to improve the traffic carrying capacity and safety of the US 17 and Market Street corridor in the project area.

#### LEAST ENVIRONMENTALLY DAMAGING PRACTICABLE ALTERNATIVE (LEDPA):

- |                       |   |                     |   |
|-----------------------|---|---------------------|---|
| 1. Alternative M1+E-H | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 4. Alternative M1+U | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 2. Alternative M2+O   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 5. Alternative M2+U | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 3. Alternative M1+R   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |                     |   |

The project team has concurred on the LEDPA for the proposed project as listed above.

NAME	AGENCY	DATE
<i>Brad Edwards</i>	USACE	5-17-2012
SEE ATTACHED MEMO <i>CH</i>	USEPA	6/6/12
<i>Tony Jordan</i>	USFWS	5/17/2012
	NMF	
<i>Michael</i>	NCDCM	5/17/12
<i>Renee Bledhill-Easley</i>	NCSHPO	5-17-12
<i>Jessi Baker</i>	NCDMF	5/29/12
<i>David W. A.</i>	NCDWQ	5-17-12
<i>Steve R. R.</i>	NCWRC	5-17-2012
<i>Ally Kim Gillespie</i>	NCDOT	5/17/2012
<i>Paul K.</i>	WMPO	5/17/12



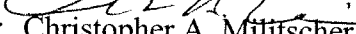
June 6, 2012

**MEMORANDUM**

To: Brad E. Shaver, U.S. Army Corps of Engineers, Wilmington District  
David Wainwright, N.C. Division of Water Quality  
Jay McInnis, North Carolina Department of Transportation

Cc: NEPA/Section 404 Merger Team Agency Representatives  
Jeffrey Garnett, U.S.E.P.A. Water Division

THRU: Heinz J. Mueller, U.S.E.P.A. NEPA Program Office

From:  Christopher A. Militscher, U.S.E.P.A. Merger Team Representative

RE: U-4751/R-3300, Military Cutoff Road Extension/US 17 Hampstead Bypass, Pender and New Hanover Counties; Concurrence Point 3 – LEDPA

I have reviewed the Conceptual Mitigation Plan (CMP) dated June of 2012 by the North Carolina Department of Transportation (NCDOT) as was requested by the U.S.E.P.A. in its November 15, 2011, letter on the Draft Environmental Impact Statement (DEIS).

Based upon past NCDOT supplemental information regarding the Cape Fear Public Utilities Authority Wellhead Protection Area (CPFUA-WPA) and avoidance and minimization measures proposed by NCDOT, I conditionally concur with the selection of Alternative M1 for TIP Project No. U-4751 as the LEDPA. This concurrence is conditioned on final designs, final avoidance and minimization measures, and the identified environmental commitments made by NCDOT. Potential impacts to CFPWA current and future water supplies need be avoided in accordance with 33 CFR 320.4(m) and Section 101(g) of the Clean Water Act.

Based upon the CMP provided, the discussions during the CP 3 meeting held on May 17, 2012, and other environmental concerns identified by the U.S.E.P.A. in the November 15, 2011, letter, I abstain from concurring on Alternative E-H as the LEDPA for TIP Project No. R-3300. Based upon the CMP, stream mitigation sites are still “under construction” and there are no assurances that adequate credits to compensate for Alternative E-H stream impacts will be available at the time of permit applications. The CMP does not identify any other transportation project mitigation needs in the two HUCs. EPA will be requesting that final mitigation plans comply with the 2008 Federal Compensatory Mitigation Rule (33 CFR Parts 325 and 332 and 40 CFR Part 230).

I plan to continue participation in the NEPA/Section 404 Merger team process. Thank you.

## Section 404/NEPA Interagency Agreement

### Concurrence Point No. 4a Avoidance and Minimization

#### Project Title and Project Numbers:

Proposed SR 1409 (Military Cutoff Road) Extension, New Hanover County, TIP No. U-4751, State Project No. 40191.1.2, Corps Action ID 2007 1386

#### LEDPA/Recommended Alternative:

Military Cutoff Road Extension Alternative M1

#### Avoidance and Minimization:

Military Cutoff Road Extension Alternative M1 minimizes impacts to resources. However, it is not feasible for the proposed project to completely avoid impacts to the Waters of the US and still meet the purpose and need of the project. The following avoidance and minimization efforts have been incorporated into the proposed project:

#### Section 404 Avoidance and Minimization Measures

- 3:1 slopes are proposed in wetland areas and adjacent to streams.
- Loops and ramps in the Military Cutoff Road Extension interchange at Market Street were tightened, reducing wetland impacts by 0.89 acre [BWD -0.19 acre, ZWY -0.04 acre, PD-04 -0.66 acre]. Impacts to BDITCH1 were reduced by 1,911 square feet.
- A retaining wall was added on the west side of the proposed roadway south of Putnam Drive to avoid impacts to wetland PD-01 (-0.07 acre).
- Military Cutoff Road Extension north of Torchwood Boulevard was realigned in the vicinity of the Cape Fear Public Utility Authority's Nano Water Treatment Plant. Wetland impacts were reduced by 0.78 acre [BWI] and stream impacts were reduced by 677 feet [BSO -560 feet and BSP -117 feet].
- The U-turn bulb adjacent to wetland CWA just north of the Cape Fear Public Utility Authority property will be shifted southward out of Wetland CWA, reducing wetland impacts by 0.10 acre.
- The design was revised at the Military Cutoff Road Extension interchange with the US 17 Wilmington Bypass. The ramp in Quadrant D was pulled in, reducing wetland impacts by 1.16 acres [CWF -1.10 acres, DWC -0.06 acre]. Impacts to the Plantation Road Site were reduced by 0.02 acre and impacts to the Corbett Tract Residual Strip were reduced by 0.07 acre.

#### Additional Avoidance and Minimization

##### ***Wells***

- The original design of proposed Military Cutoff Road Extension Alternative M1 would have relocated two water supply wells operated by the Cape Fear Public Utility Authority (CFPUA).

These wells are located on the east side of the proposed roadway north of Torchwood Boulevard on the Nano Water Treatment Plant property. The alternative was realigned in this area to avoid these wells and minimize impacts to the CFPUA groundwater water supply infrastructure.

- Prior to the completion of the final environmental document for the project, NCDOT will meet with the CFPUA, local fire departments and other appropriate agencies to discuss additional protection measures for the wellhead protection area. Measures requiring NCDOT participation will be identified in the project commitments.
- NCDOT will coordinate with the CFPUA on the potential inclusion of a sign on Military Cutoff Road Extension identifying the water supply area.
- Well locations and a 100-foot buffer around the wells will be depicted on final constructions plans for Military Cutoff Road Extension. The Special Provisions within the final design plans will include a requirement for the contractor's to educate their employees that project construction is occurring within a wellhead protection area.
- NCDOT will coordinate with CFPUA on utility impacts resulting from the proposed project.

### ***Water Quality and Erosion Control***

- Howe Creek is designated an Outstanding Resource Water (ORW) by the North Carolina Division of Water Quality (DWQ). Tributaries of this stream (BDITCH1) are designated ORW due to the classification of their receiving waters. Design Standards in Sensitive Watersheds will be implemented for BDITCH1 during project construction.

### ***Residential and Business Relocations***

- Control of access was reduced along Market Street both north and south of the Military Cutoff Road Extension interchange to minimize impacts to properties on Market Street. Loops and ramps in the interchange were tightened. A new relocation report and right of way cost estimate will be prepared and included in the FEIS. It is expected that the design modifications will result in eight fewer residential relocations and 33 fewer business relocations.
- The southeast quadrant (Loop D) of the Military Cutoff Road Extension and Market Street interchange was realigned to the west to minimize impacts to Covil Crossing, a residential area.
- Multiple interchange configurations were reviewed during the development of the Military Cutoff Road Extension alternatives. The current interchange design provides the capacity needed to handle the high volume of traffic and minimizes impacts to Prospect Cemetery.

### ***Historic Resources***

- Avoidance and minimization measures have been incorporated into the Alternative M1 design on Market Street at Mount Ararat AME Church. A southbound free flow ramp onto Military Cutoff Road Extension was changed from a full exit lane to an angular exit. In addition, the storage length for the right turn lane from Market Street onto Ogden Park Drive was reduced to match existing conditions. Right of way impacts to the proposed Mount Ararat AME Church historical boundary were reduced from 0.58 acre to 0.05 acre.

### ***Other***

- Wetland BWD is located at the proposed intersection of Military Cutoff Road Extension Interchange

Loop D and Gordon Road. The FEIS will include an explanation as to why the design cannot avoid impacts to wetland BWD.

- NCDOT will investigate on-site mitigation opportunities near wetland BWD. The currently undeveloped five-acre lots near the US 17 Wilmington Bypass will also be evaluated for use as potential mitigation sites.
- The design incorporates a retaining wall and guardrail to minimize impacts to stormwater ponds in the Food Lion shopping center, located on the west side of existing Military Cutoff Road just south of Market Street.
- The use of retaining walls will be evaluated at stormwater ponds BPE and BPF, which are located on the east side of Military Cutoff Road Extension between Lendire Road and Torchwood Boulevard.
- NCDOT will review the existing permit conditions for all stormwater ponds impacted by Military Cutoff Road Extension to ensure the permitted treatment requirements are met under post construction conditions.
- The FEIS will include an explanation as to why Military Cutoff Road Extension transitions from a 30-foot median to a 46-foot median within the wetland area north of Torchwood Boulevard. The FEIS will provide an estimate of the additional impacts associated with the use of the 46-foot median.
- NCDOT will further investigate ways to avoid impacts to the Corbett Tract and the Plantation Road Mitigation sites during detailed project design. If possible, no right of way will be acquired from these sites.

The project team has concurred on the Avoidance and Minimization for the proposed project as listed above.

Name	Agency	Date
BRAD SHAVER <i>Brad Shaver</i>	USACE	7/19/2012
	USEPA	
Gary Jordan	USFWS	7/19/2012
	NMF	
<i>Hooper</i>	NCDCM	7/19/12
Renee Medkiss-Easley	NCSHPO	7-10-12
	NCDMF	
<i>Paul Whiting</i>	NCDWQ	7/19/12
<i>St. L. Jr.</i>	NCWRC	7-19-2012
Kim L. Gillespie	NCDOT	7/10/12
	WMPO	



Loop D and Gordon Road. The FEIS will include an explanation as to why the design cannot avoid impacts to wetland BWD.

- NCDOT will investigate on-site mitigation opportunities near wetland BWD. The currently undeveloped five-acre lots near the US 17 Wilmington Bypass will also be evaluated for use as potential mitigation sites.
- The design incorporates a retaining wall and guardrail to minimize impacts to stormwater ponds in the Food Lion shopping center, located on the west side of existing Military Cutoff Road just south of Market Street.
- The use of retaining walls will be evaluated at stormwater ponds BPE and BPF, which are located on the east side of Military Cutoff Road Extension between Lendire Road and Torchwood Boulevard.
- NCDOT will review the existing permit conditions for all stormwater ponds impacted by Military Cutoff Road Extension to ensure the permitted treatment requirements are met under post construction conditions.
- The FEIS will include an explanation as to why Military Cutoff Road Extension transitions from a 30-foot median to a 46-foot median within the wetland area north of Torchwood Boulevard. The FEIS will provide an estimate of the additional impacts associated with the use of the 46-foot median.
- NCDOT will further investigate ways to avoid impacts to the Corbett Tract and the Plantation Road Mitigation sites during detailed project design. If possible, no right of way will be acquired from these sites.

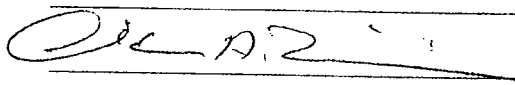
The project team has concurred on the Avoidance and Minimization for the proposed project as listed above.

Name	Agency	Date
	USACE	
	USEPA	
	USFWS	
<i>Intg. Aide for Ken Seckler</i>	NMF	8/3/12
	NCDCM	
	NCSHPO	
	NCDMF	
	NCDWQ	
	NCWRC	
	NCDOT	
	WMPO	

Loop D and Gordon Road. The FEIS will include an explanation as to why the design cannot avoid impacts to wetland BWD.

- NCDOT will investigate on-site mitigation opportunities near wetland BWD. The currently undeveloped five-acre lots near the US 17 Wilmington Bypass will also be evaluated for use as potential mitigation sites.
- The design incorporates a retaining wall and guardrail to minimize impacts to stormwater ponds in the Food Lion shopping center, located on the west side of existing Military Cutoff Road just south of Market Street.
- The use of retaining walls will be evaluated at stormwater ponds BPE and BPF, which are located on the east side of Military Cutoff Road Extension between Lendire Road and Torchwood Boulevard.
- NCDOT will review the existing permit conditions for all stormwater ponds impacted by Military Cutoff Road Extension to ensure the permitted treatment requirements are met under post construction conditions.
- The FEIS will include an explanation as to why Military Cutoff Road Extension transitions from a 30-foot median to a 46-foot median within the wetland area north of Torchwood Boulevard. The FEIS will provide an estimate of the additional impacts associated with the use of the 46-foot median.
- NCDOT will further investigate ways to avoid impacts to the Corbett Tract and the Plantation Road Mitigation sites during detailed project design. If possible, no right of way will be acquired from these sites.

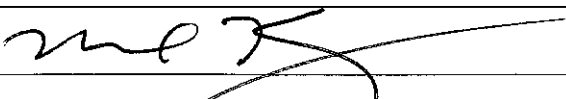
The project team has concurred on the Avoidance and Minimization for the proposed project as listed above.

Name	Agency	Date
	USACE	
	USEPA	8/6/12
	USFWS	
	NMF	
	NCDCM	
	NCSHPO	
	NCDMF	
	NCDWQ	
	NCWRC	
	NCDOT	
	WMPO	

Loop D and Gordon Road. The FEIS will include an explanation as to why the design cannot avoid impacts to wetland BWD.

- NCDOT will investigate on-site mitigation opportunities near wetland BWD. The currently undeveloped five-acre lots near the US 17 Wilmington Bypass will also be evaluated for use as potential mitigation sites.
- The design incorporates a retaining wall and guardrail to minimize impacts to stormwater ponds in the Food Lion shopping center, located on the west side of existing Military Cutoff Road just south of Market Street.
- The use of retaining walls will be evaluated at stormwater ponds BPE and BPF, which are located on the east side of Military Cutoff Road Extension between Lendire Road and Torchwood Boulevard.
- NCDOT will review the existing permit conditions for all stormwater ponds impacted by Military Cutoff Road Extension to ensure the permitted treatment requirements are met under post construction conditions.
- The FEIS will include an explanation as to why Military Cutoff Road Extension transitions from a 30-foot median to a 46-foot median within the wetland area north of Torchwood Boulevard. The FEIS will provide an estimate of the additional impacts associated with the use of the 46-foot median.
- NCDOT will further investigate ways to avoid impacts to the Corbett Tract and the Plantation Road Mitigation sites during detailed project design. If possible, no right of way will be acquired from these sites.

**The project team has concurred on the Avoidance and Minimization for the proposed project as listed above.**

Name	Agency	Date
	USACE	
	USEPA	
	USFWS	
	NMF	
	NCDCM	
	NCSHPO	
	NCDMF	
	NCDWQ	
	NCWRC	
	NCDOT	
	WMPO	9/25/12

## Section 404/NEPA Interagency Agreement Concurrence Point No. 4a Avoidance and Minimization

### Project Title and Project Numbers:

Proposed US 17 Hampstead Bypass, New Hanover and Pender Counties, TIP No. R-3300, State Project No. 40191.1.2, Corps Action ID 2007 1386

### LEDPA/Recommended Alternative:

US 17 Hampstead Bypass Alternative E-H

### Avoidance and Minimization:

US 17 Hampstead Bypass Alternative E-H minimizes impacts to resources. However, it is not feasible for the proposed project to completely avoid impacts to the Waters of the US and still meet the purpose and need of the project. The following avoidance and minimization efforts have been incorporated into the proposed project:

### Section 404 Avoidance and Minimization Measures

- 3:1 slopes are proposed in wetland areas and adjacent to streams.
- US 17 Hampstead Bypass was realigned between Station 443+00 and Station 529+00 as it approaches and crosses Harrison Creek Road. Wetland impacts were reduced by 4.77 acres. Impacts to streams were reduced by 5.93 linear feet.
- US 17 Hampstead Bypass was realigned in the vicinity of the NC 210 interchange between Station 553+00 and Station 601+00. Wetland impacts were reduced by 0.78 acre and stream impacts were reduced by 258 linear feet.
- US 17 Hampstead Bypass was realigned in the vicinity of Holiday Drive between Station 650+00 and Station 714+00. Wetland impacts were reduced by 7.99 acres. However, the shift results in additional impacts to streams of 332 linear feet.

### Additional Avoidance and Minimization

#### ***Red-cockaded Woodpecker***

Prior to Concurrence Point 3, the proposed northern US 17 Hampstead Bypass interchange was moved from its location north of the Topsail School Complex to south of the schools to minimize impacts to red-cockaded woodpecker (RCW) foraging habitat. At the corridor public hearing, the public was opposed to the interchange location south of the schools because it limited thru-traffic on existing US 17 north of the schools. In response, a new local interchange is proposed north of the Topsail Schools Complex (Option 6TR). This additional interchange uses a reduced design to avoid affecting RCW foraging habitat. If RCW foraging habitat ceases to exist at the northern interchange at the time NCDOT applies for authorization from the Corps of Engineers to construct the project, the Department will revisit the original interchange design, known as Alternative E-H ORIG. As currently described,

Alternative E-H ORIG would further minimize wetland impacts compared to Alternative 6TR, which is NCDOT's preferred.

### ***Water Quality and Erosion Control***

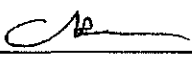
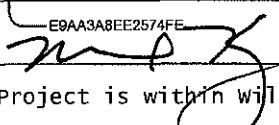
- Old Topsail Creek and Nixons Creek are designated as Commercial Shellfishing, High Quality Waters (SA; HQW) by the North Carolina Division of Water Quality. Tributaries of these streams (NSA, NSF, NDITCH1 and ZTRIB1) are designated SA; HQW due to the classification of their receiving waters. Design Standards in Sensitive Watersheds will be implemented for NSA, NSF, NDITCH1 and ZTRIB1 during project construction.

### ***Community Impacts and Relocations***

- In response to public input and concerns over lack of access, an interchange has been added north of the Topsail Schools Complex to maintain access along existing US 17 (Option 6TR). This interchange will provide the access requested by the public. It uses reduced design criteria to minimize impacts to RCW habitat and the Topsail Schools Complex, and avoid a Pender County water tower. If RCW foraging habitat ceases to exist at the northern interchange at the time NCDOT applies for authorization from the Corps of Engineers to construct the project, the Department will revisit the original interchange design, known as Alternative E-H ORIG. As currently described, Alternative E-H ORIG would further minimize wetland impacts compared to Alternative 6TR, which is NCDOT's preferred.
- Control of access was reduced along the west side of existing US 17 near the project's northern terminus to minimize impacts to a business and a church. It is expected that design modifications will result in three fewer residential relocations, four fewer business relocations and one less non-profit relocation overall.



The project team has concurred on the Avoidance and Minimization for the proposed project as listed above.

Name	Agency	Date
DocuSigned by: Brad Shaver 66772C08D03340B...	USACE	06/10/2013
ABSTAIN  DocuSigned by: Gary Jordan 501BAD677C42452...	USEPA	5/15/13
DocuSigned by: Fritz Rohde 7D10D31C923E4AC...	USFWS	06/11/2013
DocuSigned by: Steve Sldad D233D46D7248414...	NMF	06/11/2013
DocuSigned by: Renee Gledhill-Earley AC28D78C939248E...	NCDPCM	06/13/2013
DocuSigned by: Anne Deston A4DFC086EECE412...	NCSHPO	06/11/2013
DocuSigned by: Mason Herndon E795F318CA9F438...	NCDMF	06/10/2013
DocuSigned by: Travis W. Wilson 31585D0B682E436...	NCDWQ	06/10/2013
DocuSigned by: Kim Gillespie E9AA3A8EE2574FE	NCWRC	06/11/2013
	NCDOT	06/07/2013
	WMPO	6/13/13
Project is within Wilmington MPO area, Cape Fear RPO does not need to sign. Cape Fear RPO		

**NEPA/Section 404 Merger Process**  
**Abstention Brief**

May 15, 2013

To: Jay McInnis, P.E., NCDOT Project Manager

THRU: Heinz J. Mueller, Chief, NEPA Program Office

Cc: Merger Project Team

From: Christopher A. Militscher, REM, CHMM, USEPA Merger Representative

1. Project Name and brief description: **US 17 Hampstead Bypass, R-3300 (and Military Cut-off Road Extension, U-4751), New Hanover and Pender Counties. Abstention from CP 4A, Avoidance and Minimization**
2. Last Concurrence Points (*signed*): **CP 4A for U-4751 on 8/8/12 and CP 3 for R-3300 on 5/17/12.**
3. Explain what is being proposed and your position including what you object to. **It is the EPA Merger Team representative's position that the NCDOT substantially revised the LEDPA following the CP 3 meeting (including the addition of a second interchange near the northern terminus and a 6-lane section) and since the issuance of the 9/11 DEIS. EPA does not believe that a substantial increase in impacts to jurisdictional wetlands and streams is justified without a full environmental analysis of all of the feasible alternatives previously considered during the CP 3 meeting for R-3300. As stated in NCDOT's e-mail of 4/29/13 and in the handout provided, the new LEDPA Alternative for R-3300 results in 4.35 acres and 750 linear feet of additional impacts to jurisdictional wetlands and streams, respectively. EPA notes that NCDOT reduced the increase in jurisdictional impacts by designing one interchange to be a smaller interchange than is typically desired.**
4. Explain the reasons for your potential non-concurrence. Please include any data or information that would substantiate and support your position. **The DEIS did not identify a second interchange for the northern terminus area. EPA also notes that the USACE has requested a commitment that NCDOT re-examine the very original northern interchange referred to as EH-ORIG based upon future ESA consultation for RCW foraging habitat.**

**A second interchange was not included in the original E-H corridor presented in the DEIS and it is anticipated that NCDOT will require additional right-of-way for this interchange not depicted in the DEIS. NCDOT and USACE now seek concurrence on avoidance and minimization for R-3300 without updating the DEIS or formally going**

back to an appropriate concurrence point (Please see Merger MOU page 2, Concept of Concurrence).

NCDOT has provided an analysis that now combines U-4751 with R-3300 for the purposes of documenting avoidance and minimization measures. The Merger team's acceptance of the 'savings' of 2.9 acres of wetlands and 677 linear feet of streams under CP 4A is now added to the additional impacts from the changed design resulting in a 'smaller loss'. Currently, the U-4751 and R-3300 LEDPAs combined result in a net increase of 1.45 acres of wetlands and 73 linear feet of streams. EPA does not dispute potential traffic conflicts with an interchange near Topsail High School. However, EPA believes that the 'need' for a 6-lane facility should have been addressed in the DEIS. The analysis provided did not address the wetland and stream impacts for Alternative U, only the residential and business relocations, impacted noise receptors, and cultural resource effects. Alternative U was not selected as the LEDPA and it should have been comprehensively compared to the revised E-H Alternative. Alternative U also potentially avoided impacts to RCW.

EPA does recognize that the new LEDPA for R-3300 avoids and minimizes impacts to 3 fewer residences, 4 fewer businesses and 1 less church than the original LEDPA that the Merger team concurred on for R-3300.

In total with U-4751, this proposed project results in 248.2 acres of wetland impacts, and 22,379 linear feet (4.2 miles) of stream impacts.

5. List any relevant laws or regulations that you believe would be violated or jeopardized if the proposed action were implemented and explain the basis for violation. Please attach a copy of the relevant portion of the law or regulation or provide an email address where the documents may be located. **CWA Section 404(b)(1) guidelines. See comments above and additional LEDPA information below. EPA has previously provided technical comments on the DEIS. <http://water.epa.gov/lawsregs/guidance/wetlands/mitigate.cfm>**  
*"Avoidance. Section 230.10(a) allows permit issuance for only the least environmentally damaging practicable alternative. The thrust of this section on alternatives is avoidance of impacts. Section 230.10(a) requires that no discharge shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact to the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences."*
6. What alternative course of action do you recommend? **The transportation project sponsors NCDOT and USACE should formally re-evaluate the CP 3 LEDPA decision of revised Alternative E-H for R-3300. This abstention brief should be considered by NCDOT, USACE, and NCDWQ as a formal request to revisit a concurrence point under the Merger MOU. The NCDOT and USACE might also consider supplementing the DEIS to address the new LEDPA. Deferring these substantial design changes and substantial environmental impacts for disclosure in the FEIS is not recommended by the EPA Merger Team representative. Another alternative evaluated in the DEIS may now be the LEDPA.**

## **FYI: Additional Information on LEDPA DETERMINATION**

40 C.F.R. section 230.10(a), the basis for the LEDPA determination, states that, except as provided in CWA section 404(b)(2), a permit will not be issued "if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem. An aquatic ecosystem is an ecosystem located in a body of water. Communities of organisms that are dependent on each other and on their environment live in aquatic ecosystems. The two main types of aquatic ecosystems are marine ecosystems and freshwater ecosystems, so long as the alternative does not have other significant adverse environmental consequences. The LEDPA requirement is an attempt to avoid environmental impacts instead of mitigating for them. The Corps may only approve a project that is the LEDPA. The LEDPA involves two separate determinations; it must be both practicable and the least environmentally damaging. The LEDPA requirement's purpose is "avoiding significant impacts to the aquatic resources and not necessarily providing either the optimal project location or the highest and best property use."





## **APPENDIX D**

### **CITIZENS INFORMATIONAL WORKSHOP SUMMARY**

---



## **Comments Received at August 15, 2013 Citizens Informational Workshop**

A citizens informational workshop was held on Thursday, August 15, 2013 in the cafeteria of Topsail High School in Hampstead. The purpose of the workshop was to present information about changes to the US 17 Hampstead Bypass design. These design changes, including the addition of an interchange north of the Topsail Schools complex, were developed in response to public concerns about access to existing US 17 at the northern end of the project.

One hundred eighty-three citizens registered their attendance at the workshop. Citizens had the opportunity to submit written comments and questions at the workshop or via mail and e-mail after the workshop through September 23, 2013. Twenty-six written comments were submitted at the workshop and one written comment was submitted during the subsequent comment period. The written comments are summarized below.

1. Commenter 1 stated the northern interchange “does not make sense.” He noted the reasons for the northern interchange design should be presented to the public for discussion and input. Commenter 1 stated if the northern interchange is needed the design should accommodate through traffic on existing US 17.
2. Commenter 2 indicated the US 17 Bypass is badly needed to solve traffic problems in the area. He supports the plan as presented and indicated it should be built as soon as possible.
3. Commenter 3 indicated he is against the interchange west of Grandview Drive. He said it will cost too much and is not needed.
4. Commenter 4 is not sure the interchange west of Grandview Drive is needed. He stated the traffic study should be updated to make sure the percentage of traffic that would be diverted from US 17 to the bypass is correct. Commenter 4 stated if over 50 percent of traffic would divert to the bypass, then NCDOT should move-up the schedule for building the bypass rather than building median strips on existing US 17.
5. Commenter 5 indicated the interchange west of Grandview Drive is an unnecessary expense, in particular because of the limited distance between the NC 210 and northern interchanges.
6. Commenter 6 asked NCDOT to listen to Hampstead residents who are against the interchange west of Grandview Drive. He said not building the interchange will save money and gives residents what they are requesting.
7. Commenter 7 (two people) said the bypass, but not all of the connections to existing US 17, is needed now to relieve existing traffic congestion in Hampstead. Commenter 7 said the interchange west of Grandview Drive would destroy a lake and block US 17 through traffic by forcing all traffic through an extra signal. If the interchange is needed, they would like to hear the reasons why; however, the extra signal on US 17 should be left out of the design.
8. Commenter 8 indicated the interchange west of Grandview Drive is not needed. She said the northern interchange and the NC 210 interchange provide adequate access to the area.

Commenter 8 indicated the additional interchange will cut Hampstead in half physically and socially, and is a waste of money.

9. Commenter 9 thanked NCDOT for adding the northern interchange that allows southbound traffic onto future Business 17 but said it should be moved further north to NC 210 at Surf City. He also indicated the interchange west of Grandview Drive is not needed and believes traffic projections are over-stated. Commenter 9 asked if new foraging habitat could be created for RCW so the needs of the birds and people can both be met.
10. Commenter 10 asked why a new interchange is proposed to be built in wetlands rather than at Hoover Road. Commenter 10 noted an interchange at Hoover Road, with associated repairs and widening, would provide secondary access to the elementary school and be less expensive.
11. Commenter 11 indicated he liked the northern interchange but the interchange west of Grandview Drive is not needed.
12. Commenter 12 indicated the interchange west of Grandview Drive is not needed and is too expensive. He stated it would isolate large blocks of residences and impact emergency response times.
13. Commenter 13 stated the new interchange west of Grandview Drive is not needed now, but could be built later if needed. Commenter 13 indicated he does not see the need for the US 17 Bypass. He believes a satisfactory solution to traffic issues would be installing concrete medians on US 17 in Hampstead and allowing left and U-turns only at signalized intersections.
14. Commenter 14 asked if any thought has been given to the impacts of increased traffic on Sloop Point Road and Country Club Road. She also asked why existing US 17 has to be closed north of the schools.
15. Commenter 15 expressed frustration that homeowners were not contacted before workers started placing stakes on their properties. She explained she purchased her property for the quiet country setting but will now have a highway very close to her home. She wants her property to be completely taken rather than just partially taken.
16. Commenter 16 stated a highway on his property will disrupt the quiet country setting and wildlife. Commenter 16 would like his entire property to be acquired if the bypass will take a part of it.
17. Commenter 17 is concerned about the noise levels from the US 17 Hampstead Bypass.
18. Commenter 18 is concerned her home will be located very close to the bypass right-of-way but will not be purchased. She said this will negatively impact her property value and peace of mind.
19. Commenter 19 stated the bypass will be located 300 feet from his deck, and the noise and traffic will be awful. The project will diminish his property value, he will not be able to sell his house and he will not be able to let his grandchildren play in the woods anymore. Commenter 19 questioned why impacts to woodpeckers are more important than impacts to people.

20. Commenter 20 (two people) indicated the interchange west of Grandview Drive is not needed and is too expensive. They believe the interchange would encourage heavy traffic to come into town rather than divert it around Hampstead. They stated an interchange is needed on Hoover Road to serve the school and to allow the fire department improved access for responding to emergencies. They said a current community study is needed because the traffic projections used are too high and do not reflect actual growth patterns in Hampstead.
21. Commenter 21 stated the new northern interchange is a good solution to previous public concerns about the lack of access to existing US 17.
22. Commenter 22 commented that the name “Old Highway 17” should be part of Business 17. He also thinks NC 210 should be widened to four lanes and made a major road into Hampstead, and the interchange west of Grandview Drive should be removed.
23. Commenter 23 likes the new northern interchange that provides easier access to Hampstead and alleviates traffic by the school on existing US 17. She also likes that an interchange is not planned at Hoover Road because she doesn’t want more traffic near the school, her home and other residences there. She commented that the US 17 Bypass should be elevated over Hoover Road to avoid heavy construction traffic and the temporary detour that would take residences.
24. Commenter 24 thanked NCDOT for the timely and informative meeting, as well as for listening to residents and providing the new northern interchange so as not to close off Business 17 through Hampstead. Commenter 24 said she understood the need for a third interchange, but she is concerned about providing access to the businesses affected by the Grandview Drive interchange. She asked if the Sawmill Grill will be provided access so that it can remain in its current location.
25. Commenter 25 commented that the property “tracks” shown along Millard Lane on display map 5 are wrong for the properties labeled 1675, 1676, and 1677.
26. Commenter 26 requested a copy of the six R-3300 citizens informational workshop maps.
27. Commenter 27 asked why New Hanover County is issuing building permits for houses and approving subdivisions on Putnam Drive and Torchwood Boulevard in what she thought was the path of the Military Cutoff Road Extension.





## **APPENDIX E**

### **LIST OF REFERENCES**

---



## REFERENCES

Dr. J.H. Carter III & Associates, Inc. December 21, 2012. Summary of red-cockaded woodpecker foraging habitat analyses from latest design file for US Highway 17 Bypass of Hampstead (R-3300), Pender County, North Carolina.

Mulkey Engineers and Consultants. May 1, 2012. Addendum and Revisions to the February 8, 2012 *Evaluation of Impacts to Public Water Supply Groundwater Wells, US 17 Corridor Study*, NCDOT TIP Project U-4751 & R-3300, Pender and New Hanover Counties.

Mulkey Engineers and Consultants. June 14, 2012. Avoidance and Minimization, Proposed SR 1409 (Military Cutoff Road) Extension, New Hanover County. State Project 40191.1.2, NCDOT TIP Project U-4751, Corps Action ID 2007 1386.

Mulkey Engineers and Consultants. February 20, 2013. Avoidance and Minimization, Proposed US 17 Hampstead Bypass, New Hanover and Pender Counties. State Project 40191.1.2, NCDOT TIP Project R-3300, Corps Action ID 2007 1386.

Mulkey Engineers and Consultants. July 8, 2013. Cape Fear Public Utility Authority Water Supply Wells Meeting Minutes. New Hanover County. TIP U-4751 – Proposed SR 1409 (Military Cutoff Road) Extension.

Mulkey Engineers and Consultants. July 2011. Draft Environmental Impact Statement. New Hanover and Pender Counties. TIP U-4751 and TIP R-3300 – US 17 Corridor Study.

Mulkey Engineers and Consultants. February 8, 2012. Evaluation of Impacts to Public Water Supply Groundwater Wells, US 17 Corridor Study, NCDOT TIP Project U-4751 & R-3300, New Hanover and Pender Counties.

Mulkey Engineers and Consultants. May 29, 2013. Follow up to R-3300 Merger Concurrence Point 4A Meeting; Comparison of Impacts for Concurrence Point 3 Detailed Study Alternative with Option 6TR.

Mulkey Engineers and Consultants. May 17, 2012. Least Environmentally Damaging Practicable Alternative, Proposed SR 1409 (Military Cutoff Road) Extension and Proposed US 17 Hampstead Bypass, New Hanover and Pender Counties. State Project 40191.1.2, NCDOT TIP Projects U-4751 and R-3300, Corps Action ID 2007 1386.

Mulkey Engineers and Consultants. September 2012. Natural Resources Technical Memo. New Hanover and Pender Counties. TIP U-4751 and TIP R-3300 – US 17 Corridor Study.

Mulkey Engineers and Consultants. January 19, 2012. Post Hearing Meeting Minutes. New Hanover and Pender Counties. TIP U-4751 and TIP R-3300 – US 17 Corridor Study.

Mulkey Engineers and Consultants. January 7, 2013. Post Hearing Meeting Minutes. New Hanover County. TIP U-4751 – Proposed SR 1409 (Military Cutoff Road) Extension.

Mulkey Engineers and Consultants. September 2013. Indirect and Cumulative Effects Screening Report and Land Use Scenario Assessment. State Project 40191.1.2. Proposed SR 1409 (Military Cutoff Road) Extension and Proposed US 17 Hampstead Bypass. TIP Projects U-4751 and R-3300.

New Hanover County Government. [www.nhcgov.com](http://www.nhcgov.com).

North Carolina Department of Transportation, Quality Enhancement Unit, Value Management Services Group. December 22, 2011. R-3300 Value Engineering Report.

North Carolina Department of Transportation, Division of Highways, Project Development and Environmental Analysis Unit, Natural Environment Section. August 9, 2012. Addendum Red-Cockaded Woodpecker Foraging Habitat Analyses Report, US Highway 17 Hampstead Bypass Project, Pender County, North Carolina, T.I.P. Number R-3300.

North Carolina Department of Transportation. 2012-2018 State Transportation Improvement Program.

North Carolina Department of Transportation, Geotechnical Engineering Unit. March 2009. Geotechnical Pre-Scoping Report. New Route from Military Cutoff to the Proposed Wilmington Bypass (R-2405 and US 17 Hampstead Bypass from US 17 to US 17 North of Hampstead).

North Carolina Department of Transportation. April 2008. Survey Report Red-Cockaded Woodpecker, TIP U-4751 and TIP R-3300 – US 17 Corridor Study.

North Carolina Department of Transportation. January 2011. Red-Cockaded Woodpecker Foraging Habitat Analysis Report for US Highway 17 Bypass of Hampstead (R-3300).

Pender County Government. [www.pendercountync.gov](http://www.pendercountync.gov).

Personal Communication, 2013. Email correspondence with Mr. Bryan McCabe, Pender County Utilities, May, 2013 regarding preliminary design of northern interchange for R-3300 US 17 Hampstead Bypass in the area of Pender County water tank and solid waste facility.

Personal Communication, 2013a. Email correspondence with Mr. Kyle Breuer, Pender County Planning and Community Development, June 2013 regarding status of proposed developments in Pender County.



Personal Communication, 2013b. Email correspondence with Mr. Mike Kozlosky, City of Wilmington and Sam Burgess, New Hanover County Planning, June 2013 regarding status of proposed developments in New Hanover County.

RS&H Architects, Engineers and Planners, Inc. September 24, 2012. U-4751/R-3300 – Military Cutoff Road Extension/Hampstead Bypass, Preferred Alternative Traffic Operations Analysis – 2035 Build Conditions RCW Alternatives 6R, 6T, 8A and 8.

RS&H Architects, Engineers and Planners, Inc. September 20, 2013. U-4751/R-3300 – Military Cutoff Road Extension/Hampstead Bypass, Preferred Alternative Traffic Operations Analysis – 2035 Build Conditions RCW Alternatives 6R, 6T, 8 and 6TR.

United States Fish and Wildlife Service, Region 4: Southeast Region, North Carolina Ecological Services. 2009. Threatened and Endangered Species in North Carolina: New Hanover County. Updated December 26, 2012. [www.fws.gov/nc-es/es/clisttext.html](http://www.fws.gov/nc-es/es/clisttext.html).

United States Fish and Wildlife Service, Region 4: Southeast Region, North Carolina Ecological Services. 2009. Threatened and Endangered Species in North Carolina: Pender County. Updated December 26, 2012. [www.fws.gov/nc-es/es/clisttext.html](http://www.fws.gov/nc-es/es/clisttext.html).

Wilmington Urban Area Metropolitan Planning Organization. November, 2011. Transportation Corridor Official Map. TIP R-3300 Proposed US 17 Hampstead Bypass. New Hanover and Pender Counties. [www.wmpo.org](http://www.wmpo.org).